## FARM AND GARDEN.

### Smut in Oats.

Smut in oats usually destroys ten per cent. of the crop and often more. Professor Arthur came across a field of oats that was nearly destroyed by smut. He thought to try whether the spores of the smut fungus were carried with the seed oats. Sowing some of these seeds next year he found the smut abundant on the crop. Of the same seed plots were sown in which, before sowing, the seeds were soaked in copperas water. In four different plots of different soil the unsoaked seeds gave about per 500 of 17.5, 29.90, 20.70 and 23.40 of smutted panicles. The seed soaked in copperas water—4oz. copper sulphate to one gallon water—seed soaked 17½ hours before sowing, gave plants of which 9.2 panicles only had smut, the same soaked 40 hours, no smut. In a solution of caustic potash—1½ of caustic potash to 1½ pints of water, soaked 17½ hours—no smut.—*Independent.*

### Good Food, Good Flavor.

Ever and anon some enthusiastic breeder of thoroughbred fowls descants upon the merits of his favorite breed—their tender, juicy flesh and rich, highly flavored eggs, not to be compared with the dunghills long ago discarded—forgetting that the dunghills were truly named, and that from hard scratching for a living in a barnyard, they produced the small, tough bodies and ill-flavored eggs complained of, while his thoroughbreds have a yard to themselves, are fed on the choicest grain and grasses, have nothing but pure water to drink, and all the delicacies of the season, from the dinner table.

What breeder has not noticed the difference in flavor of the eggs from his best yards and from the general flock running at large. Instinctively, the best fowls receive the best food and most careful attention, and the result is richer and better flavored eggs. Feeding for flavor must sooner or later become one of the high arts of poultry culture.—*New York Market Journal.*

### Impaction of the Stomach.

Cattle fed upon dry, hard food at this season are apt to suffer from indigestion, which results in fever of the stomach and impaction with the dry, undigested food. The inflammation dries and bakes the coarse matter in cakes between the folds of the stomach, and as this organ cannot act, death is only a question of time. The symptoms are dullness and loss of appetite; the nose is hot and dry, the eyes discharge tears and become red, and there is great thirst. When dry, coarse feed is being eaten, the cattle should be given some linseed meal or linseed oil, and a thin tea made by boiling linseed is also very useful to prevent this disease. When it happens the best remedy is two pounds of epsom salts dissolved in warm water, and mixed with a pint of molasses. Linseed tea should be given copiously. When the rumen, or paunch is involved in this disorder, it may save life to make an incision in it and remove the contents, and inject the solution of epsom salts. A few stitches will close the opening, which heals rapidly.—*New York Times.*

### Fine Sand for Bedding Animals.

A correspondent of the *Country Gentleman* says: Many years ago, when I had easy access to clean sand, I used it for bedding the cows and horses in preference to straw, sawdust, dry tanbark or any other material, for the reason that a bed of fine sand would absorb the liquid of the stalls sooner and keep the animals cleaner than any other bedding. There was the fact in the case. That is all there is about it. A few days since I was at the stables of a farmer who works a large farm and keeps several teams and a large herd of neat cattle, who told me that he prefers fine sand for bedding to any other material. He had more than two thousand bushels (I judged) of dry, fine sand, stored for bedding in the winter. No other bedding will prevent the manurial accumulation from adhering to the hair of domestic animals so effectually as clean sand. A peck of fine sand will readily absorb and retain half a peck of liquid manure. Then, here is another important consideration in favor of sand, namely, the facility with which manurial accumulations of any stable may be handled and stored without loss from heating and "fire fanging," as stable manure will do when the bedding consists of straw or haum of any sort.

### Curing Side-Bacon.

In handling any products of the hog care must be taken to kill on a cool, frosty day and see that the careass is thoroughly cooled through, but not frozen, before it is cut up. The large pieces of side meat for smoked bacon are best cured by dry salting on a platform made for the purpose. On this spread a layer of salt an inch deep, then rub each piece of meat thoroughly on the sides and edges with salt and lay the skin side down on the platform. When the first layer of meat is completed, sprinkle a good layer of salt over it and then rub and lay down the next layer in the same manner as the first, and so continue until all is packed; finish with a good coating of salt on the top of the pile. The meat should be taken up and rubbed with salt three or four times during the curing, and repacked as at first. This rubbing may be done in a wide, shallow box containing three or four inches of salt in the bottom, and will be found quite convenient for the purpose. The time required for the curing will be from five to eight weeks, depending on the thickness of the pieces and the temperature of the room where it is kept. In a cellar with an even temperature meat will take salt much sooner than in a cold room with an occasional free e, and it will be well to test the curing by cutting into a piece before taking it up for smoking. The smoking will require about ten days, hickory wood being the best for the purpose.—*New York World.*

### Saving Makes Profits.

Profit in all kinds of business depends more upon what is saved than what is made. A farmer loses money if he does not make this principle the basis of all his work. As with feeding live stock, so with feeding crops, if the manure is not made available by good culture, or good culture is not aided by liberal manuring, there is loss. A case in point may be mentioned of a farmer who produces over 2,000 pounds of tobbacco per acre, made by good manuring and through tillage of so good a quality that it brings seventeen cents a pound, equal to $340 per acre. By saving or making effective every part of the work, one acts with another to produce the desired effect, and in growing crops, feeding stock, and the general management of the farm, it is not the amount expended or the work done that makes up the profit, but the useful effect produced and the saving of labor and material. The work of the farm may be compared to the power of a stream; one may have a leaky dam or a flume, or a poorly constructed wheel, and the force of the fall may be frittered away by various wastes. In farm work the adaptation of the right means to the desired ends constitutes the science of agriculture, and the whole intent, purpose and effect of science are to make every part of the farm-work as effective as possible by avoiding wastes of all kinds.

In fattening cattle or swine there are many opportunities for losses and wastes. The most appropriate food is rarely chosen, but whatever may be most convenient; there is rarely that mixture of foods which is most effective in making a healthful mixture of flesh and fat; there are seldom the best arrangements for feeding without waste or for the preservation of health during the fattening process, and in many ways farmers miss getting the full effect of the food. How many make a pound of live weight from so little as four pounds of food, and yet three and one-half or even less of the best kind of food will make a pound of increase, and how many keep the best kind of stock for profit? We might say how few, for but very few do this. And yet with a large number of farmers the greater part of the crops is food to stock. This is an appropriate time for considering this matter and for acting in accordance with the most profitable methods.—*New York Times.*

### Farm and Garden Notes.

Mr. Caywood believes that raspberries winter best that are kept growing until frost.

Spinach keeps longest in a cold pit on shelves, piled not more than six inches deep.

William Muth says that bees dislike all black, dark or iron-gray colors, and that fur, hair and wool are an abomination to them. The bee-keeper, therefore, ought to avoid clothing of such material and colors.

Mr. Philbrick says that the best kind of squashes for long keeping are the hard-shelled varieties, and advises that these be stored in a loft provided with double windows, to keep out frost, and a stove or other means of warmth.

A farmer says: "I put into a barrelful of sweet cider a quart of milk, about a half a pint of mustard seed—the black seed—and six eggs. Mix them all up together and pour them in the barrel. Cider will keep sweet that way for half a dozen years. I think it gets better and sweeter the longer you keep it."

Great pains should be observed in feeding swine, observes a Western pork maker. Never feed any more than they will eat clean at each meal, and not less than three times a day. Plenty of fresh water should always be where a fattening hog can drink at any time. Make a practice of raking and burning all cobs and refuse in the yard once a week. The pigs like the charcoal made from cobs, and it will keep them clear of worms.

One who has had experience in the matter advises that in storing away garden seeds they should be placed in woolen bags, with a piece of gum camphor in each bag, and also to dust the seeds with insect powder. These methods will protect the seeds against insects, which destroy many kinds, such as peas, beans, etc. All seeds should be kept in a dry place, and an examination of them should be made several times during the winter.

It is becoming more and more evident that the making, saving and applying of all the manure possible on the farm, is a very important matter. Soil-tillers are beginning to realize the fact that, once the supply of plant-food is exhausted, they cannot restore it without adding considerably to the expense of the crop. Yet with many sufficient care is not taken to save material that, if properly managed, can be made into first-class fertilizers. There are many things wasted—much refuse matter thrown away—which, if added to the manure or compost heap, would eventually pay good dividends in the way of increased crop-production.

### The Panama Canal.

The Panama Canal, or rather "The Interoceanique," will be, when completed, about fifty-five miles long, says a *Times-Democrat* correspondent. So far about eighteen miles have been dredged out on the Chagres, and a portion of the mountain at Culebra has been blasted out. This is all the work of contractors, not of the French. The American Dredging Company have done their work nobly, while the French dredges have lain idle and rusted along the shores of the Chagres. The chief aim of a French employe seems to be to drink absinthe, cognac and claret, and wear a cork hat and top boots. They are extremely clannish, and view Americans as an inferior race of animals.